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ABSTRACT

Excerpts from "Teacher Education and Training" (the James' Report), issued in the United Kingdom early in 1972, comprise the bulk of this newsletter. James recommends that "all teachers should be entitled to release with pay for inservice education and training on a scale not less than the equivalent of one term in every seven years, and, as soon as possible, on a scale of one term in five years." This recommendation is the major part of the proposed "third cycle" of teacher education--inservice education. Part II of a French translation of the German text on the principles of a reform of upper-secondary education agreed to by the Ministers of the Lander contains the details of a reform proposal aimed at creating the "functional structures for individualising the education of adolescents." Excerpts from the chapters "The Parents, the Family and the Child," "Ability and Attainment," and "The Schools" from "From Birth to Seven" published by the (British) National Children's Bureau demonstrate how wide the range of educational disadvantage is among a sample of 98 percent of the children born in England, Scotland and Wales during one week in 1958. Data on reading and arithmetic ability from the ongoing longitudinal study are presented and discussed in terms of the effects of social class, class size, and parental education. (AL)

NEWS-LETTER
FAITS NOUVEAUX

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SPECIAL ISSUE

The issue of News-Letter/Faits Nouveaux published at the end of the vacation period has little news on educational policy to report. We have therefore again prepared a special issue, as in 1971, to give in some detail excerpts of important reports or recommendations published in the course of the year.

We regard the James' Report on Teacher Education and Training, issued in the United Kingdom in early 1972, as a major, although in its own country highly controversial, contribution to the common European effort towards reforming the initial training of teachers, institutionalising their further training and professionalising the teaching body. Excerpts from Chapters Six (Summary of the report) and Two (The third cycle) are reprinted below. We regret that we could not also give excerpts from the corresponding French Joxe Report as to date the full text has not been published.

In the Federal Republic of Germany the Education Ministers of the Länder have agreed on the principles of a reform of upper-secondary education. The text published in mid 1972 has been translated into French by the Secretariat. In this issue we reprint Part II of the text containing the details of the reform which undertakes, in line with the general European tendency, a bold attempt at creating the functional structures for individualising the education of adolescents.

Finally, we felt that the report From Birth to Seven published by the National Children's Bureau in London in mid 1972, is of general interest to all countries striving to equalise educational opportunities - by demonstrating how wide the range of disadvantage still is. With the kind permission of the National Children's Bureau we have reprinted excerpts from the chapters dealing with the findings of the Survey on "The parents, the family and the child", on "Ability and attainment" and on "The schools".

NUMERO SPECIAL

L'édition de la News-Letter/Faits Nouveaux, publiée à la fin de la période des congés, a peu de nouvelles sur la politique pédagogique à signaler. Nous avons donc préparé une édition spéciale, comme en 1971, pour fournir quelques extraits détaillés d'importants rapports ou recommandations, publiés au courant de l'année.

Nous estimons que le Rapport James sur la formation des enseignants, publié au Royaume-Uni début 1972, bien qu'étant l'objet de grandes controverses dans son propre pays, est une contribution de premier ordre à l'effort commun en Europe pour la réforme de la formation initiale des enseignants, et l'institutionalisation de leur perfectionnement ainsi que de leur statut professionnel. Des extraits des chapitres Six (Résumé du rapport) et Deux (Le troisième cycle) sont reproduits plus bas. Nous regrettons de ne pouvoir également fournir des extraits du rapport correspondant en France, le Rapport Joxe, le texte intégral de ce dernier n'ayant pas encore été publié.

En République Fédérale d'Allemagne, les Ministères de l'Education des Länder se sont mis d'accord sur les principes d'une réforme de l'enseignement secondaire supérieur. Le texte publié à la mi-1972 fut traduit en français par le Secrétariat. Dans ce document, nous avons reproduit la Partie II contenant les détails de la réforme qui, conformément à la tendance générale en Europe, constitue une tentative courageuse pour créer des structures fonctionnelles afin d'individualiser l'éducation des adolescents.

Enfin, nous avons estimé que le rapport "From Birth to Seven" publié par le National Children's Bureau à Londres à la mi-1972, est d'un intérêt général pour tous les pays s'engageant dans la voie d'assurer l'égalité de chances en matière d'éducation, car il démontre l'étendue des handicaps qui existent encore. Avec l'obligeant accord du National Children's Bureau nous avons réimprimé les extraits des chapitres portant sur "les parents, la famille et l'enfant", sur "aptitudes et niveaux d'acquisitions" et sur "les écoles".

Editor : The Director of Education and of Cultural and Scientific Affairs
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Strasbourg

TEACHER EDUCATION AND TRAINING

A Report by a Committee of Inquiry appointed by the Secretary of State for Education and Science, under the Chairmanship of Lord James of Rusholme; London, Her Majesty's Stationery Office, 1972

PRINCIPLES OF THE REPORT

Two principles have governed the thinking from which our proposals are derived, both of which are, of course, subservient to the axiom that the interests of the children and students in schools and colleges take priority over those of institutions or even of the teaching profession itself. First, proposals should be capable of speedy implementation and should relate to the immediate future, since it would be unrealistic in the extreme to attempt to construct a system capable of lasting indefinitely. The best that we could hope to do would be to ensure that the proposed arrangements offered a framework for growth and development over perhaps the next 20 or 25 years, sufficiently flexible to accommodate the changes which will inevitably take place in that time. Secondly, the proposals should reflect and help to enhance the status and independence of the teaching profession and of the institutions in which many teachers are educated and trained. For too long the teaching profession has been denied a proper degree of responsibility for its own professional affairs. For too long the colleges of education have been treated as junior partners in the system of higher education. It is hoped that the implementation of this report would do much to encourage both the profession and the colleges to move forward to a new degree of independence and self-determination. The application of these principles has led all of us to a solution which depends more upon the better use of resources already committed than upon a diversion of additional resources from other desirable objectives in social and educational policy.

SUMMARY OF THE REPORT

Education and Training

All teachers need to be well educated professionals but the specific kind of preparation a teacher needs obviously depends upon the kind of school in which he plans to work, his specialism (if any) and the age range of the children or young people he intends to teach. Differences in the preparation for teaching do not necessarily, however, denote any difference in the rigour of the preparation or in the intellectual demands on those who undertake it. It is a clear recommendation of this report that, given an appropriate educational base, the professional training of all teachers should be the same in length and structure, however different in its emphases and the details of its content, and that preservice higher education and professional training for all school teachers should extend over at least four years. The fact that all initial teacher training will lead to the same professional qualification must reduce that divisiveness (between primary and secondary, graduate and non-graduate) which has bedevilled the teaching profession for so many years.

For many teachers at present, education and training are combined in the concurrent courses offered in the colleges of education and in the education departments of the polytechnics. It would be wise to identify and preserve the virtues which flow from such courses, and how this might be achieved is discussed below. Meanwhile, it must be said that the present pattern of training, despite its merits, has been the cause of widespread misgivings. Criticisms of the present system, which we hold to be justified, point to the need for a radical solution.

A number of the criticisms apply to consecutive as well as to concurrent training. Much of the theoretical study of education is irrelevant to students who have had, as yet, too little practical experience of children or teaching, and the inclusion of this theoretical study is often at the expense of adequate practical preparation for their first teaching assignments. In the attempt to produce fully competent teachers by the end of the initial course, timetables become overloaded and the essential is sometimes sacrificed to the desirable. In the attempt to cover a very wide range of subject areas, the number of small teaching groups has been multiplied, with a consequent uneconomic use of resources. The concurrent course, moreover, suffers from a confusion of objectives and a tension between the personal education of students and their professional preparation.

Taken together, these criticisms represent a problem to which there is no obvious solution, unless the initial higher education, preservice training and induction, and subsequent inservice training of teachers can be regarded as consecutive parts of a continuing process, in which all the parts are indispensable and, although separate, interrelated. The essential prerequisite is that there must be adequate opportunities for the continued education and training of all teachers, at intervals throughout their careers. Only then can the objectives of preservice training be sensibly determined. Only then can the professional preparation of intending teachers be as specialised and functional as their initial needs dictate. There is a still more important reason for emphasising the need for better inservice opportunities: it is only from a basis in teaching experience that teachers can derive the best from professional education and training. Moreover, they need to update and extend their knowledge and skill, and to adapt themselves to the changes they are bound to face in their teaching careers. This report has been written on the assumption that it is possible and desirable to divide the education and training of teachers into three consecutive stages: the first, personal education; the second, preservice training and induction; and the third, inservice education and training. The term "cycles" has been chosen for these stages.

The first cycle should consist of a course of study leading to a higher education award recognised as a qualification for entry to the second cycle. A university or Council for National Academic Awards degree would be a suitable first cycle award for some teachers, including, it is hoped, a growing number completing joint honours courses in which educational studies were combined with another discipline. Certain other specialist qualifications would also be acceptable. For some teachers, on the other hand, a different kind of educational base would be more helpful. It is recommended that there should be a two-year course leading to a new award, to be called the Diploma in Higher Education (Dip.H.E.). The course would be broad in scope and would include, for all students, a substantial element of general studies, occupying about a third of the time, combined with rigorous study of normally two special subjects, one of which might or might not be related to educational studies, chosen by the students from a range of options. The course would interrelate the special and general studies and would be constructed on a unit basis. The award would depend on the successful completion of not less than a specified number of units. It cannot be over-emphasised that the proposed Dip.H.E. could not be equated with the preparation of primary teachers nor exclusively with the education of teachers.

The Dip.H.E. course, although designed with the needs of teachers in mind, should be widely acceptable to prospective students and employers alike. It would be well suited to the needs of the many sixth formers who, because there is no attractive alternative, enter existing higher education courses without proper motivation. The introduction of such a course would meet many of the criticisms of present arrangements. The students in the colleges, those who intended to teach and those who did not, would be there because they had chosen the course that was offered and not because they had had to commit themselves to a course of professional training for which they were not fully motivated, simply in order to obtain higher education. For students who had not yet made up their minds about their future occupation, there would be no obligation to commit themselves to a career choice at the age of 18. There would be an end to the complaint that some students feel "trapped into teaching" because the qualification with which they leave their college is not valid in any other occupation. On the other hand, some students following the diploma course with no predisposition towards teaching might become attracted to it. For some students, the Dip.H.E. would be the basis for subsequent professional teacher training, but for others it would be a perfectly acceptable terminal qualification. Some might go on to train for certain other professions, and some might move on to degree courses in universities, polytechnics or within the college system.

The colleges would contain a large range of students who, on completing the diploma course, would proceed on a number of different paths. The colleges would therefore no longer be training teachers in isolation. This solution to the problem of isolation would be better than the "diversification" often urged, which seems to imply an unrealistic proliferation of specialist training courses for different professions, within the same institutions.

Unquestionably, however, any new system must continue to meet the needs of the many students who feel from the outset a strong commitment to teaching. For many teachers in primary and nursery schools, for a number of 'generalist' teachers in middle and secondary schools and for some secondary specialists in such areas as home economics and physical education, the established pattern of concurrent training, for all its

weaknesses, has had great value and relevance. Two of the chief benefits are these: first, the course gives students an early introduction to educational studies, related to practical experience of the classroom against which to test the generalisations arising from their theoretical work; secondly, it enables them consciously to integrate their personal education with the prospective requirements of their work as teachers. The kind of consecutive pattern now proposed, involving a cycle of personal education followed by a cycle of training, would have to give such students similar opportunities to make early progress towards their occupational goal. They would be able to choose educational studies as their special studies in the diploma course and they would also have, as part of the course, the opportunity for practical observation of learning and teaching situations in schools, nurseries and other institutions. They would be helped to make appropriate connections between what they learned in college and what they would eventually teach in schools. Students with these aspirations would be able to follow a diploma course similar in important respects to the first part of a concurrent course, although there would be one notable difference in that those who changed their minds about wanting to teach would be able to leave after two years, with a qualification to show for their work. Some colleges - for example specialist colleges of home economics or physical education, and colleges specialising in training for primary and nursery education - might choose to concentrate very largely on education-oriented courses of this type, and to attract students predominantly from among those who were already determined to teach.

Many of the students proceeding to the second cycle would no doubt prefer to remain in the institution in which they took their first cycle course, but they would not be obliged to do so. Transfers at the end of the first cycle would be readily possible and would be necessary, to take two examples, for students wishing to pursue a specialist interest developed after entry into higher education or for many whose first cycle institution did not offer teacher training courses. For all intending teachers, the second cycle would consist of two years of professional preparation. The first year would normally be in a professional institution, whether a college of education or the education department of a university or polytechnic, and would cover both the theoretical exploration of disciplines contributing to the study of education, and practical work. The training would be specifically related to the teacher's prospective needs in his first appointment. For students whose first cycle course had included no educational studies there would be additional courses or studies. At the end of the first year, successful students would be recommended to the Secretary of State for recognition as "licensed teachers" and would proceed to the second year of the cycle, which would consist of largely school-based training.

At the beginning of this second year, a licensed teacher would take up his first teaching assignment, but with a deliberately reduced timetable. He would be released for the equivalent of not less than one day a week, for attendance at a professional institution or "professional centre" where he would take part in discussions and seminars and have the opportunity for further study. He would be able to look for help and advice to a teacher on the staff of his school who would be designated a "professional tutor", with particular responsibilities for helping new teachers on the staff and students-in-training receiving practical experience, as well as for co-ordinating the inservice training arrangements for all teachers in his school. The second year of the second cycle would thus combine the first year of service and the last year of initial training. Teachers successfully completing this year would become "registered teacher" i.e., full members of the profession.

The whole of the second cycle would be designed on the assumption that all teachers would have substantial opportunities for continued education and training during their professional careers, and its objectives would accordingly be realistically limited. Arrangements for the second year of the cycle would mean that, for new teachers, a period of systematic induction, with proper supervision and support, and with time for reflection and study, would replace the existing probationary arrangements which have been widely condemned. The fact that the second year would be an integral part of initial training would make it possible to reduce the role of formal teaching practice in the first year of the cycle. The current arrangements for teaching practice are in any case under considerable strain, because of pressure on the schools, the difficulties of giving students appropriate supervision and the great distances college tutors often have to travel in order to spend relatively little time with their students. The new arrangements would place more emphasis on that valuable practical experience which can often be given through college-based activities, including the use of video-tape recordings, micro-teaching techniques and other small group work with children brought into college for the purpose.

Since entry to the second cycle would depend upon the successful completion of an approved course of higher education extending over two years or more, it is recommended that all students who then successfully completed a further two years of professional training in the second cycle should receive the award of a professional degree of B.A.(Education) on the basis of the assessments described in this report. This would be a more effective and satisfactory way of achieving an all-graduate profession than would be an arbitrary (and, for some considerable time, impracticable) insistence that all teachers should possess academic degrees of existing types, which in any case would be an unsuitable ed[illegible]ional base for many teachers. The award of this new degree would depend on the satisfactory fulfilment of a professional role in the schools as well as on academic attainments. With its introduction, the B.Ed. degree should cease to exist in its present form as an initial qualification, although it would have an important future as an inservice award, especially if, as has been suggested in this report, it could subsume a number of the existing advanced diplomas in education. Students of good ability, who wished not only to make an early entry into teaching but also to pursue their studies to a higher level, would be able to return to selected professional institutions for a one year course leading to the degree of M.A.(Ed.), either at the end of the second cycle or after an interval of further teaching experience. Within the college system there would also be opportunities, in selected colleges, for students to take three year degree courses developed from the Dip.H.E. The validation of these awards and of the Dip.H.E. is discussed below.

The third cycle covers the very wide range of activities which serving teachers should undertake at intervals throughout their working lives, to continue their personal education and extend their professional competence. In no area covered by this inquiry has criticism of present arrangements been more out-spoken or more general. In no area do the proposals of this report deserve greater emphasis. The proposals for the third cycle are clear: all teachers should be entitled to release with pay for inservice education and training on a scale not less than the equivalent of one term in every seven years and, as soon as possible, on a scale of one term in five years. This entitlement would be satisfied only by release for designated full-time courses lasting at least four weeks, or their approved part-time equivalents, and would be in addition to any shorter term third cycle activities in which teachers took part, whether or not these involved release from school. There should also be a considerable expansion of these shorter term opportunities. To commit energies and resources to a development of the third cycle along the lines envisaged here would be the quickest, most effective and most economical way of improving the quality of education in the schools and colleges and of raising the standards, morale and status of the teaching profession. For third cycle activities on the scale proposed it would be essential to set up appropriate machinery to identify needs and to co-ordinate arrangements to meet them.

Administration, finance and the validation of awards

The implementation of the proposals outlined here for the education and training of teachers, involving systematic arrangements for the induction of new teachers in the profession, a large expansion of third cycle work and the organisation of a network of professional centres (in addition to profesional institutions) for both second and third cycle activities, would require strong regional agencies. This pattern of regional bodies would need to be a modification of the existing A.T.O. (1) system, but with considerably enlarged responsibilities and important structural changes. First, any reorganisation of the system (particularly in view of the imminent reorganisation of local government) should take the opportunity to end the present wide variations in size of the A.T.O.s and achieve a more sensible grouping. It has been argued in this report that a division of England and Wales into 15 regions would produce regional bodies of a suitable size. These bodies might be called Regional Councils for Colleges and Departments of Education (R.C.C.D.E.s). Secondly, although the new bodies, like the present ones, should involve all the partners in teacher education and training, the opportunity should be taken to end the present anomaly that only some universities, and some polytechnics, are concerned. All these institutions of higher education, and not just a largely fortuitous selection of them, should be involved in the important work of preparing teachers for the nation's

(1) The Area Training Organisation (A.T.O.), the setting up of which was recommended in the McNair Report (1944), is responsible for the general organisation of teacher training in a given geographical area. Represented on the body are the university, colleges of education and Local Education Authorities of the area.

schools and colleges. Some universities and polytechnics would continue to train teachers but all should have the opportunity, through those of their members who had appropriate interests, to contribute expertise, advice and help of various kinds, and all should be represented in the new regional structure. Thirdly, those universities on which A.T.O.s are based at present should be relieved of the somewhat anomalous responsibility for financing the administration of a system whose composition represents a very wide partnership, whose functions will increasingly extend far beyond the ambit of the universities and whose finance is drawn very largely from non-university sources. The administration of the R.C.C.D.E.s should be financed by direct grant from the Department of Education and Science (D.E.S.) and should be independent of any one partner. The R.C.C.D.E.s should appoint their own Directors and administrative staff and conduct their own negotiations with outside bodies. On this footing, they would be well able to resist undue pressures whether from inside or outside. Fourthly, it is necessary to distinguish between the planning and administration of a regional organisation for teacher education and training and the validation of awards.

Above the regional agencies, and representing them, there should be a national body, perhaps called the National Council for Teacher Education and Training (N.C.T.E.T.). The constitution and powers of such a body, and of the R.C.C.D.E.s, would reflect the distinction referred to above between the professional/planning aspect of the system and the academic/awarding aspect. The N.C.T.E.T. and each R.C.C.D.E. would have two strongly constituted and appropriately composed committees, the professional committee and the academic committee. All professional teaching qualifications, including the B.A.(Education) and all inservice professional awards, must be dependent upon recognition and approval by the N.C.T.E.T. It should make recommendations to the Secretary of State on the recognition of "licensed" and "registered" teachers. It would also be empowered, itself, to award the B.A.(Education). An essential feature of the scheme would be that the N.C.T.E.T., whose professional committee would be strongly representative of the teaching profession, would be the final arbiter on questions of which first cycle qualifications were acceptable for admission to teacher training and which professional qualifications the Secretary of State could be recommended to approve. The teaching profession would thus be given a greater measure of control over its own professional destinies than it has ever had before.

Decisions about the numbers of teachers needed by the schools (and thus of the second cycle places to be provided in the system), as well as decisions about the total level of resources to be committed to first, second and third cycle activities would be properly taken by central government and by local authorities acting in concert. These national decisions would be incorporated in guide lines issued by the N.C.T.E.T. to the Regional Councils who would elaborate them as detailed strategies. The R.C.C.D.E.s would provide the framework for the co-operation in these tasks of all the interests involved: Local Education Authorities, maintained and voluntary colleges, universities, polytechnics, teaching staff in schools and F.E. colleges and the D.E.S. All would contribute to a discussion of priorities and would influence the distribution of resources, by having a recognised responsibility for making recommendations on these questions to the constituent members of the R.C.C.D.E.s. In this way, the colleges of education would be given an effective say, at present denied them, in how the available resources should be used, without encroaching upon the proper financial responsibilities of the providing bodies.

The academic committee of the R.C.C.D.E.s would be concerned with the first cycle work in the colleges, namely courses for the Dip.H.E. and degree courses based upon it. The problem of how the new awards of the Dip.H.E. and the B.A.(Ed.) could best be validated has had our prolonged and careful consideration. Three major factors influenced the recommendations on this question. First, it was most important for both awards to be launched without delay, with strong and unequivocal support, so that they could quickly gain national recognition. It has been argued in the report that the necessary machinery should be set up with all possible speed so that the first awards of the Dip.H.E. might be made in 1975 and of the B.A.(Ed.) in 1977. Secondly, it was impossible to foresee whether existing degree-granting bodies would wish to be responsible for the Dip.H.E. or would regard it as an appropriate qualification for them to award. Thirdly, it was of the utmost importance that the N.C.T.E.T., whose professional committee would be strongly representative of the teaching profession, should finally decide which first cycle awards should be acceptable for intending teachers. These considerations have pointed to the conclusion that the N.C.T.E.T. should be empowered to award the Dip.H.E. as well as the B.A.(Ed.). There are, however, some important qualifications to the second of the three factors mentioned above. The report has discussed the advantages of validation of the

C.N.A.A. of the Dip.H.E. and the development in some colleges of new-style degrees based upon it. The possibility is also acknowledged in the report that some universities might wish to do the same, for the Dip.H.E. or this degree work, or both. In that event, the academic/awarding function of the new structure might be remitted quite soon to the C.N.A.A. or in some cases to universities. The combination of academic and professional functions within the same structure, which would otherwise be necessary, would cause problems but these could and should be overcome. In time the differences in the duties of the academic and professional committees of the N.C.T.E.T. and the R.C.C.D.E.s might lead, especially if the Dip.H.E. were adopted by a wider range of institutions, to the establishment of two separate national bodies, with a corresponding differentiation at regional level. Of the third factor mentioned above, however, there would be absolutely no qualification: that is, the N.C.T.E.T. should be firmly given the responsibility for deciding which first, second and third cycle awards were professionally acceptable. This would be an essential principle for the N.C.T.E.T. jealously to guard.

Some wider questions

Any new proposals for the education and training of teachers must be formulated to some extent against the background of the higher education system as a whole. A detailed examination of this wider context would be beyond the terms of reference of this inquiry, but there are some aspects of it which must be our concern. It is significant, for example, that the prospective expansion of the higher education "base" will substantially increase the numbers of educated men and women from among whom new teachers may be recruited. Moreover, the terms of reference of the inquiry, by inviting a consideration of whether it is possible to end the "isolation" in which many teachers are educated and trained at present, themselves require attention to the implications which proposals may have for other kinds of higher education. Perhaps most important of all, the very successes of the teacher training establishment in responding to the demands placed upon it, together with some stabilisation in the total size of the school population, have created problems and presented opportunities. To put it bluntly, the supply of new teachers is now increasing so rapidly that it must soon catch up with any likely assessment of future demand, and choices will have to be made very soon between various ways of using or diverting some of the resources at present invested in the education and training of teachers.

A number of possible choices have been elaborated in the body of this report. First, the problems of teacher training cannot adequately be solved unless teachers in the schools and F.E. colleges have the opportunity to play a more effective part in the professional formation of new and aspiring entrants. This is especially the case if, as we firmly believe, the so-called probationary year must be transformed from its present character of an ordeal to be endured into an extensive and meangingful period of professional training. Secondly, it is essential that all teachers should have a series of opportunities for continued education and training throughout their careers, more systematically and on a more substantial scale than is possible under the haphazard and inadequate arrangements at present in force. Both these suggestions would have important implications for the staffing of the schools: neither would be feasible without significant and continuing improvements in present staffing ratios. Both suggestions would also imply a substantial demand for training places, additional to those needed for preservice training. This report makes a third, and very important, suggestion for using the existing resources of the teacher training system to great advantage. The introduction of the Dip.H.E. would attract into the colleges many students other than intending teachers and would give them educational opportunities well suited to their needs, besides broadening the educational and social environment in which many teachers received their education and training. The educational and social arguments for the Dip.H.E., both as a terminal qualification and as a base for academic and professional degrees, are, to our mind, conclusive.

To make satisfactory provision for the three needs outlined in the last paragraph would more than take up the existing capacity of the teacher training establishment. Indeed, a growth in the popularity of the diploma might require an expansion of the college system which, to judge by recent experience, the colleges would be well able to achieve. Such an expansion would be highly desirable in any case since the colleges would be asked to make important innovations and would be better able to do so in a context of expansion than in one of stagnation or contraction.

The pattern of teacher training recommended in this report would make possible a highly sophisticated and sensitive control of teacher supply, in terms both of numbers and composition. The control would operate at the point of entry to the second cycle. Decisions taken then would have a significant effect on the supply of teachers twelve months later, when the students admitted would become licensed teachers, and would be fully effective twelve months after that, when the students were registered as full members of the profession. There can be no reasonable doubt that, with the general expansion of higher education and the development of the Dip.H.E., the number of holders of formally acceptable first cycle awards wishing to proceed to teacher training would exceed the number of second cycle places required. The problem would not be one of under-supply, but of the necessity for careful selection to match the supply to the needs of the schools. Within the framework of national decisions on supply and of consequent guide lines issued by the N.C.T.E.T., it would be an important part of the functions of the R.C.C.D.E.s to establish criteria for the selection of entrants to the second cycle.

THE THIRD CYCLE

Much of the argument of this report depends upon the proposals made for the third cycle. To none of our recommendations do we attach greater importance than to these, for they determine a great deal of the thinking which underlies the report as a whole. Any proposals to improve the methods by which a profession acquires new members must take a long time to become fully effective. Meanwhile, established members of the profession need opportunities to improve their professional status and standards. Many teachers at present are outstandingly effective and successful, have a clear understanding of their professional aims, and enjoy a high degree of satisfaction in their work. Others are less fortunate. It is no accident that teachers in the former category tend to be those who have had the benefit of inservice opportunities to extend their personal education and professional skills. It is all the more important, therefore, that every teacher should have access to such opportunities in the third cycle. The best education and training of teachers is that which is built upon and illuminated by growing maturity and experience. For this reason alone, the third cycle has prime importance.

The third cycle comprehends the whole range of activities by which teachers can extend their personal education, develop their professional competence and improve their understanding of educational principles and techniques. The term thus covers a wide spectrum, at one end of which are evening meetings and discussions, weekend conferences and other short-term activities, with limited and specific objectives and taking place usually, but not always, in the teachers' own time. At the other end are long courses leading to higher degrees or advanced qualifications, and requiring the release of teachers for full-time attendance at suitable establishments. At this end of the spectrum, too, may be periods of release to take part in curriculum development and evaluation, or in other projects and investigations. For some teachers there may be periods of secondment to fields outside teaching, so that they may widen their experience and thereby enrich their contribution to the schools. Between lies a wide variety of courses and other activities, of different lengths and patterns, serving many different purposes. These activities may be part-time or full-time, or may include periods of both. They may take place entirely during school hours and require the release of the teachers concerned, or be entirely in the teachers' own time, or they may involve a mixture of both. For this large and complex field, it is clear that "inservice training", however convenient as shorthand, is a very misleading term.

The needs of the third cycle

All teachers ought to have opportunities to extend and deepen their knowledge of teaching methods and of educational theory. When special studies of teaching methods have identified improved techniques it is important that the results should be widely communicated to teachers in the schools. All teachers should have the opportunity to acquire a better understanding of the principles and methods of educational technology, especially if this was not imparted to them in initial training. All teachers need to keep abreast of the results of educational research and experiment, and to be informed about the use of new books, materials and equipment.

All subject specialists will need to refresh and extend their knowledge of their special interests, and general teachers to widen their command of the content of what they teach. The single-subject graduate will find gaps in his background knowledge of some parts of his subject, and he may be called upon to teach one or more subsidiary subjects in which he may understandably be less confident. There are many other ways in which teachers may wish - or need - to acquire new subjects specialisms. Changes in curriculum may make new demands which teachers have to be equipped to meet. Particular examples of this are the introduction of modern mathematics, the development of science and French in primary schools and, in Wales, the growth of Welsh both as a subject of study and as a medium of instruction. Sometimes it may be a teacher's own choice to make a change. For example, a teacher of physical education may wish to develop a subsidiary subject or to reinforce a second subject which he is already teaching. There will be countless other examples of teachers who acquire new interests which they would like to develop as additional teaching skills.

Sometimes the acquisition of new subjects and skills may be dictated not so much by the inclinations of the teachers as by the needs of the schools. From time to time, shortages occur in particular subjects, such as science, mathematics, physical education for girls and religious education. It may well be that shortages of this kind will persist or recur in the future, so that some teachers will be asked to teach subjects for which their education and initial training has not prepared them. There are a number of other changes and adjustments that teachers may need to make. In recent years, for example, the teaching of young children has failed to attract - or, at least, to retain - enough new entrants, but fortunately there are many women and a few men who are drawn to this kind of work after experience with other age groups. There will be other teachers, of course, who move from primary to secondary work. Teachers need further training if they are to make changes of these kinds, especially if in future (as is suggested in Chapter 3) the objectives of the initial course are limited by making the training more specialised and functional.

There are other skills which it would not be desirable to include in initial training because they are better developed on the basis of some experience of teaching: examples are librarianship, careers advice and counselling. Some teachers turn to the teaching of children who suffer from some form of handicap. Teachers of some kinds of handicapped children are required to possess special qualifications, for which inservice facilities are needed. For others, this is not the case. It is suggested in Chapter 3 that a few colleges should provide in the second cycle training in the education of handicapped children, for those students with an early vocation to this kind of work. But some teachers will discover this vocation after they have started teaching, and will need access to the right kinds of training. There are also the special demands of teaching in multi-racial schools. An understanding of the multi-cultural nature of society should feature in any general education but it would be difficult to give all intending teachers practical experience in multi-racial schools, and it would be unrealistic to include in all initial training a study of the teaching problems involved, since many teachers would not encounter them at the outset of their careers. It would be sensible for suitably placed training institutions, and other professional centres of the kind described below, to include specific preparation for this kind of work in the second year of the second cycle, and for third cycle provision of appropriate courses to be given a high priority in areas where it is required. In the third cycle, too, there should be opportunities for immigrant teachers to equip themselves to teach in British schools.

Without moving from their schools, teachers may have to adapt themselves to important changes. New teaching methods, the introduction of new elements into the curriculum, movements of population or other local factors may change the character of schools and the nature of their work. Developments in local and national policies may have radical effects upon the way of life within particular schools. Examples of this are the preparations for the raising of the school leaving age, the introduction of first and middle schools and the reorganisation of secondary schools. Changes of this kind create problems of adjustment which inservice training facilities can do much to ease, but they are perhaps problems (although on a larger scale) of the same type as those which the individual teacher may encounter when he moves from one school to another. He, too, may have problems of adjustment - to new styles of organisation, different methods of teaching, different kinds of children. The help he needs in his induction into a new post, modest though it may be in terms of resources expended, is also an example of third cycle activity.

More substantial problems are involved in the induction into the profession of re-entrants, perhaps after an absence of several years. Re-entrants of this kind should have a high claim on inservice training facilities - preferably before, or very soon after, their return to teaching. The largest group of re-entrants consists of

married women, whose absence to have children of their own has left them out of practice and out of touch with developments in curriculum and method. A period of part-time teaching can do a great deal to help such teachers and part-time retraining, side by side with part-time experience, can be at least as valuable as, and often more convenient than, full-time secondment to training courses.

Many teachers in schools and colleges will gain promotion as heads of departments, deputy heads, deputy principals, heads or principals and it is right - for them and for the institutions in which they work - that they should be given adequate and systematic preparation for the larger responsibilities they have to assume. In their new posts they will have to lead staffs whose combined knowledge and experience is far wider than their own, and will have to co-ordinate and direct the talents of these teachers to the best advantage of the schools. They will need to develop a clear idea of the aims and functions of their schools or departments and to assess the present and potential contribution of those serving under them. For this role - managerial as well as professional - the right kind of training is of great importance. Moreover, the teaching profession is rightly regarded as a recruiting base for other related occupations: for example, educational psychology, educational administration, Local Education Authority (L.E.A.) advisory services, H.M. Inspectorate and the professional training of teachers. Teachers with ambitions in these directions will look for opportunities to prepare themselves and it should be possible within the third cycle to meet at least some of their needs.

Many witnesses have urged the importance of wider opportunities for research, not only for the staff of colleges of education but also for practising teachers. A great deal of educational research must make use of direct observations of school situations and the experience of practising teachers, but the conduct of research - especially of fundamental research - requires special skills and techniques and a degree of detachment not easily reconciled with the day-to-day demands of a teacher's work. The term is generally used, however, in a much wider sense, to include, for example, the studies in depth which experienced teachers may wish to make into particular aspects of the nature and development of children and the techniques of teaching and learning, or special studies, linked with social and community work, of the personal problems of individual children. The term also includes investigations and development projects, not least the projects sponsored by the Schools Council, in which many teachers have already been involved. The staff of colleges and schools should have the fullest opportunity to initiate or take part in such activities and the staff of colleges of education (as well as of University Departments of Education) should have opportunities to undertake suitable "pure" research projects. Research workers who come into the schools to pursue their studies should collaborate fully with the teachers concerned and the teachers who are involved in this way should be those who are interested in, and in sympathy with, the objects of the research. Teachers who particularly wish to take part in this kind of activity should have inservice opportunities to familiarise themselves with research techniques. "Research" in its widest sense includes the evaluation which all schools should regularly make of their own activities, to keep under continuing review both their objectives and the results they are achieving.

Included in the third cycle must be opportunities to obtain degrees, higher degrees and advanced professional qualifications. During the next few years there will undoubtedly be heavy demands for inservice courses leading to degrees.

Institutional requirements and implications

Implications for the schools

Inservice training should begin in the schools. It is here that learning and teaching take place, curricula and techniques are developed and needs and deficiencies revealed. Every school should regard the continued training of its teachers as an essential part of its task, for which all members of staff share responsibility. An active school is constantly reviewing and reassessing its effectiveness, and is ready to consider new methods, new forms of organisation and new ways of dealing with the problems that arise. It will set aside time to explore these questions, as far as it can within its own resources, by arranging for discussion, study, seminars with visiting tutors and visits to other institutions. It will also give time and attention to the introduction of new members of staff, not only those in their first year of teaching but all those who are new to the school. Heads of schools, heads of departments and other senior teachers should be especially concerned to assess the needs both of their schools and of teachers on their staff and to encourage teachers to take the opportunities offered outside the school for inservice education and training, whether these involve part-time day release, attendance at full-time courses or participation in vacation, weekend or evening activities.

There is no general agreement on the most appropriate length for full-time courses in the third cycle. Nor can there be, in view of the widely differing needs to be covered. At present such courses normally last either one term or one year, although there have been experiments involving six-weeks or half-term courses. Precise patterns should not be prescribed but it is important to emphasise that a teacher's entitlement to inservice training should be satisfied only by release for substantial courses, each of which should last at least four weeks full-time, or the equivalent in a coherent and continuous part-time course. Any evening, weekend or vacation courses or other short-term activities which might, or might not, involve release from school should be in addition to the basic entitlement. Many teachers already give up their own time to attend courses designed to improve their professional competence. There is no doubt that they would continue to be willing to do so. The development of longer and full-time courses should not be bought at the expense of those valuable short-term activities, which should themselves be expanded considerably. Indeed, it might be necessary to devote to them alone resources equivalent to the total now expended on third cycle courses of all kinds.

Every school should have on its staff a "professional tutor" to co-ordinate second and third cycle work affecting the school and to be the link between the school and other agencies engaged in that work. Whether the professional tutor were the head or deputy head, as might be the case in a small school, or a designated member of the staff in a larger school, it would be important for all teachers designated as professional tutors to be among the first to be admitted to third cycle courses, so that they could be trained for their new tasks. Among the responsibilities of the professional tutor would be that of compiling and maintaining a training programme for the staff of the school, which would take account both of the curricular needs of the school and of the professional needs of the teachers.

Professional Centres

The provision and management of a programme of third cycle activities on the scale proposed, together with the training to be given to 'licensed teachers' in the second, largely school-based, year of the second cycle, would depend upon the existence of a country-wide network of centres, for which the title 'professional centres' is suggested. Existing professional institutions (colleges and departments of education) would normally include the functions of professional centres among their other functions, that is, in addition to their responsibilities for the first year of the second cycle and for first cycle work, but there would also need to be other centres as described below. The existing professional institutions, in assuming the functions of professional centres, would be even more widely involved than at present in a range of inservice work. They would be the main providers of full-time substantial courses, including those leading to recognised professional awards. They would become centres for expertise in learning and teaching and for curriculum development, would act as channels for interpreting the results of educational research and, in some cases, would conduct research themselves. They would make use of the part-time services of experienced teachers and L.E.A. advisers. Their close contact with serving teachers in the schools, and especially with licensed teachers, would be of great benefit in helping them to evaluate and modify their own training procedures.

The number, distribution and size of professional centres (other than those based on professional institutions) would depend on local circumstances. Although there can be no hard-and-fast rules it is important that each centre should serve a sufficient number of teaching staff in schools and Further Education (F.E.) colleges to be economically and professionally viable, without becoming so large that teachers in the institutions with which it was associated could not develop a sense of personal engagement in its work. The extent of a local professional centre's responsibilities must obviously determine its need for accommodation. It should have its own basic premises and equipment and would need to have access to a workshop, tutorial and common rooms as well as to books, materials and equipment. For many purposes, however, it could share supplementary and specialist resources with other professional centres or with other institutions, and make use of facilities, such as laboratories and gymnasia, in schools with which it was associated. Only rarely, at least during the early years, should it be necessary to envisage establishing new purpose-built professional centres.

Professional centres, whether based on professional institutions or elsewhere, would become a forum for the exchange of ideas, information and experience, between new and experienced teachers, teacher-trainers and L.E.A. advisers. They would cover most of the day-to-day training requirements of the schools they served, and many of them would house, or arrange, more substantial courses. The third cycle courses and other activities run by these centres would be mainly for home-based students. It should be possible to cater for most of the needs by providing locally-based courses, although for some purposes (for example, courses for teachers living in thinly populated areas and special courses at regional or national centres) residential facilities would be required. They would not, however, be needed on a large scale and the prospective reduction in the number of initial training places required should make it possible to provide them without undue difficulty.

Conclusion

To implement the proposals made here for the third cycle would be a major new departure, of profound importance to the future of education in this country. It would involve bringing into partnership diverse agencies - schools, universities, polytechnics, colleges of education, advisory services, teachers' centres, resource centres and further education institutions. The establishment of such a planned partnership would be more productive of quality and probably more cost effective than any other measure proposed in this report or in the evidence submitted to the inquiry. Of all our recommendations, this deserves the highest priority.

REPUBLIQUE FEDERALE D'ALLEMAGNE

ACCORD EN VUE DE LA REFORME DU SECOND CYCLE DES LYCEES (Sekundarstufe II)

conclu le 7 juillet 1972 par la Conférence Permanente des Ministres de l'Education et des Affaires Culturelles de la République Fédérale d'Allemagne.

I. OBJECTIFS

L'Accord en vue de la réforme du second cycle des lycées doit rendre possible les changements nécessaires tant en ce qui concerne le contenu de l'enseignement que les formes sous lesquelles il est dispensé, le second cycle devant en même temps conserver une configuration uniforme dans les Länder de la République Fédérale.

Grâce à cet Accord, le cycle de transition vers l'enseignement supérieur pourra être structuré de manière à garantir une formation de base commune pour tous les élèves, tout en offrant des possibilités de spécialisation individuelle.

La possibilité d'une libre combinaison de cours fondamentaux et de cours spécialisés, pour les matières obligatoires comme pour les matières à option, satisfait à la fois les exigences de la société et les besoins individuels. Avec la multiplication des matières à option (de nouvelles disciplines facultatives viennent en effet s'ajouter à celles qui existent déjà), l'école adopte résolument une attitude dynamique pour tenir compte de la réalité sociale.

Un second cycle ainsi organisé constitue d'une part une voie vers l'enseignement supérieur, puisqu'il donne la formation nécessaire à la poursuite des études ; d'autre part, une voie vers la formation professionnelle ou la vie active. L'Accord porte uniquement sur le second cycle des lycées. Toutefois, la réforme crée les conditions organiques nécessaires à l'élargissement des programmes en vigueur dans les lycées et à une tentative de coopération entre l'enseignement général et l'enseignement professionnel. Tout est prêt pour accueillir des spécialités à caractère professionnel, conformément aux recommandations de la Commission de l'Education du Conseil de l'Education (Bildungsrat) pour le second cycle (Sekundarstufe II).

2. PRINCIPES

2.1. La réforme du second cycle des lycées, sur le plan du contenu de l'enseignement, passe par la révision des objectifs retenus pour les matières étudiées jusqu'ici. La recherche sur les programmes d'études et le développement de ceux-ci devraient faciliter cette opération. Il est d'ores et déjà possible d'incorporer à la pratique scolaire de nouvelles disciplines ou de nouveaux domaines d'enseignement.

2.2. Pour que le second cycle des lycées continue à se développer, il importe d'opérer des changements organiques pour les classes 11 à 13 (selon l'appellation en vigueur à ce jour). Il faut multiplier les possibilités de différenciation. Cet objectif peut être atteint par la création d'"options d'approfondissement" et la collaboration entre les lycées existants ou des unités organiques plus importantes.

3. ORGANISATION DES COURS

3.1. La différenciation de l'enseignement dans le second cycle se fait en fonction de l'aptitude et des performances ; le second cycle ne s'articule plus sur la base des différents types de lycées.

3.2. Dans le second cycle, les élèves reçoivent un enseignement dans les matières obligatoires et dans les matières à option, représentant normalement 30 heures hebdomadaires, dans la proportion d'environ 2 sur 1.

L'enseignement des matières obligatoires permet aux élèves d'acquérir des connaissances concernant les domaines prescrits, ou d'élargir ces connaissances.

Le système des matières à option doit permettre aux élèves de faire ce qui les intéresse et de suivre leurs inclinations sans être liés à un champ d'activité déterminé, ou de concentrer leurs efforts sur quelques points en relation avec le secteur des matières obligatoires.

3.3. A l'intérieur de chacun de ces deux secteurs, on distingue des cours fondamentaux et des cours avancés, qui, en général, s'articulent sur des matières. Les cours fondamentaux occupent de deux à trois heures, trois heures au moins pour l'allemand, les mathématiques et les langues vivantes.

Les cours avancés constituent une préparation sérieuse aux études scientifiques et permettent d'élargir les connaissances spécialisées, également dans la perspective des possibilités d'application des sciences et des arts. Ces cours sont dispensés à raison d'au moins 5 heures par semaine, et en général 6.

4. SECTEUR DES MATIERES OBLIGATOIRES

4.1. Le secteur des matières obligatoires englobe :

- les domaines linguistique, littéraire, artistique ;
- le domaine des sciences sociales ;
- le domaine des mathématiques, des sciences naturelles, de la technologie ;
- l'instruction religieuse ;
- le sport.

L'instruction religieuse est régie par les dispositions des Länder ; il en est de même pour la détermination du nombre d'heures hebdomadaires.

En ce qui concerne ces diverses disciplines, l'instruction religieuse et le sport, chaque élève du second cycle doit approfondir et élargir les connaissances ou les aptitudes acquises précédemment. Pour chaque branche, on communiquera d'une manière exemplaires, en choisissant des thèmes et des formes d'enseignement appropriées, des connaissances fondamentales sur les méthodes et les modes de pensée spécialisés. Il sera tenu compte des questions philosophiques que l'on rencontre dans ces domaines.

4.2. Dans les secteurs linguistique, littéraire et artistique, l'allemand en tant que matière représente surtout l'étude de la langue maternelle. Il s'agit notamment d'enseigner la syntaxe et de développer l'aptitude à la différenciation linguistique, compte tenu des différents niveaux de communication (par exemple langage courant, langage scientifique). La maîtrise d'une langue étrangère au moins apportera des connaissances qui permettront d'élargir ces points de vue. L'enseignement de la littérature, de la musique et des arts plastiques doit permettre aux élèves de comprendre les moyens et les formes artistiques, les possibilités humaines et les rapports sociaux.

4.3. En ce qui concerne les sciences sociales, les faits sociaux sont appréhendés d'un point de vue structurel et historique. Par une sélection de thèmes appropriés, chevauchant, le cas échéant, plusieurs matières, on donnera des informations sur les faits historiques, politiques, sociaux, géographiques, économiques et juridiques, notamment sur les transformations sociales depuis le début de l'ère industrielle ainsi que sur les relations internationales actuelles et les facteurs qui les conditionnent.

4.4. Dans le secteur "mathématiques, sciences naturelles et technologie", on fera en sorte que les élèves comprennent la démarche de l'abstraction, puissent tirer des conclusions logiques, faire des calculs simples sans risque d'erreur, aient une idée de la mathématisation des faits, des caractéristiques des méthodes des sciences naturelles, du développement de concepts modèles et de leur application à la nature animée et inanimée, ainsi que du rôle des théories dans le domaine des sciences naturelles.

4.5. L'instruction religieuse expose le fondement et l'enseignement des communautés religieuses respectives ; elle doit aborder des questions ayant trait au sens et à la valeur de la vie, exposer les différentes idéologies, conceptions du monde ("Weltanschauungen") et religions, et amener les individus à assumer la responsabilité de leurs actes dans la société.

Il appartient aux Länder de décider si l'instruction religieuse sera rattachée ou non à un domaine académique.

4.6. Dans le cadre de l'éducation physique, on familiarise les élèves avec différents sports. L'éducation physique peut faire l'objet, soit de cours fondamentaux, soit, dans certaines circonstances, de cours avancés (voir 6.4.).

5. MATIERES A OPTION

Le secteur des matières à option favorise, en liaison avec celui des matières obligatoires, le système des "options d'approfondissement". Les matières à option couvrent en général une fraction des trois domaines académiques. Elles doivent permettre aux élèves de s'initier au contenu, aux méthodes et aux vocables des différentes sciences. On y fait également une place à l'application (par exemple l'exécution artistique ou musicale, l'application des mathématiques à l'informatique), ainsi qu'à l'enseignement professionnel. En principe, les matières d'enseignement peuvent être choisies parmi toutes les sciences. Ce système donne à l'école la possibilité d'élargir la gamme des matières proposées.

6. GAMME DE MATIERES

Les cours fondamentaux et les cours de perfectionnement s'articulent en général autour de certaines matières.

6.1. En ce qui concerne les matières obligatoires et les matières à option, les cours fondamentaux et les cours de perfectionnement s'articulent essentiellement autour des spécialités suivantes :

allemand, langues étrangères, arts plastiques, musique, philosophie, instruction religieuse, théologie, instruction civique, sciences économiques, mathématiques, physique, chimie, biologie.

6.2. Sous réserve de l'autorisation de l'administration compétente, il est possible, notamment en ce qui concerne les matières à option, d'allonger la liste des disciplines proposées : pédagogie, psychologie, sociologie, droit, géologie, astronomie, technologie, statistique, informatique, etc.

Dans le secteur des matières à option, les autorités administratives compétentes peuvent aussi autoriser l'enseignement de parties de matières ou de matières et de domaines qui se chevauchent.

6.3. Peuvent également être considérées comme des matières de spécialisation et des disciplines à option : l'histoire, la géographie, la sociologie.

6.4. L'éducation physique fait en général l'objet de cours fondamentaux. L'autorité administrative compétente peut autoriser l'inclusion du sport dans les programmes avancés du secteur des matières à option sélectionnées pourvues des équipements appropriés. Ces cours avancés doivent comporter un enseignement théorique sur le sport (emprunté par exemple à la biologie ou à la psychologie).

7. STRUCTURE DU SECOND CYCLE DES LYCEES

7.1. Le second cycle commence après la classe 10. L'élève y reste au moins deux ans, et au plus quatre ans. Même les élèves qui, en raison de leurs résultats, ne restent que deux ans dans le second cycle, doivent pour l'examen de maturité, remplir les conditions prévues ci-après pour les classes 12/13.

7.2. Le système des classes établi selon un cycle annuel se transforme en un système de cours fondamentaux et de cours avancés, qui peut aussi impliquer le chevauchement de deux années. Les cours ont un caractère thématique, mais ils restent articulés sur les diverses disciplines et sur les directives en matière de programme qui leur sont applicables. Ils durent chacun un semestre.

7.3. Dans la 11e année, le système des cours est conçu de façon à atteindre son plein développement au plus tard au début de la 12e année.

7.4. Le système des cours exige des conseils individuels. Les tâches de celui qui était, jusqu'ici, le professeur principal (Klassenlehrer) sont transférées à des conseillers (animateurs).

7.5.1. Dans le secteur des matières obligatoires, les élèves des années 12/13 ont, chaque semestre, environ 20 heures de cours par semaine, au niveau de base et au niveau avancé. L'horaire global s'établit comme suit :

dans les domaines linguistiques, littéraire et artistique, au moins 22 heures par semaine pendant 4 semestres ;

dans le domaine des sciences sociales, au moins 16 heures par semaine pendant 4 semestres ;

dans le domaine des mathématiques, des sciences naturelles et de la technologie, au moins 22 heures par semaine pendant 4 semestres ;

pour l'instruction religieuse, se reporter au paragraphe 4.1. ;

pour l'éducation physique, au moins 8 heures par semaine pendant 4 semestres.

7.5.2. Pour les années 12/13, il est arrêté ce qui suit :

Au cours des 4 semestres, l'élève doit assister, dans les domaines linguistiques, littéraire et artistique, à un minimum de 2 cours semestriels (fondamentaux ou avancés) portant sur la langue maternelle, deux cours semestriels portant sur la langue étrangère choisie, et deux cours semestriels de caractère littéraire ou artistique. Dans le domaine des mathématiques, des sciences naturelles et de la technologie, il doit suivre pendant 4 semestres au moins 2 cours semestriels portant sur les mathématiques et 4 cours semestriels portant sur les sciences naturelles.

7.6. Dans le secteur des matières à option, il y a environ 10 heures de cours par semaine pendant le semestre. L'élève peut ainsi approfondir l'étude des disciplines obligatoires, parmi lesquelles il choisit les matières de spécialisation, ou suivre des cours dans des matières complémentaires.

7.7. L'élève doit choisir deux matières de spécialisation (voir 3.3., 8.3. et 9.3.), dont l'une est constituée soit par une langue étrangère, soit par des mathématiques, soit par l'une des sciences naturelles indiquée au paragraphe 6.1.

La deuxième matière de spécialisation peut être choisie parmi le groupe des disciplines mentionnées aux paragraphes 6. 1. et 6. 2. Sous réserve de l'approbation de l'administration scolaire, peuvent également faire partie des matières de spécialisation les disciplines à option mentionnées au paragraphe 6. 3. et l'éducation physique(6. 4.).

7. 8. En général, les cours de spécialisation existent séparément, à côté des cours fondamentaux (voir 3. 3.). Cependant, ils peuvent être constitués exceptionnellement par des cours complémentaires venant s'ajouter aux cours fondamentaux.

7. 9. Une concentration de certaines branches ou matières dans certaines phases du second cycle peut présenter un intérêt. Le nombre total d'heures pour chaque élève, calculable d'après les indications susmentionnées, doit cependant, autant que possible, être réparti de façon égale sur le semestre.

7. 10. Un Land peut décider de prescrire une troisième matière de spécialisation et, le cas échéant, de prévoir des obligations supplémentaires pour la deuxième et la troisième matières de spécialisation, ainsi que pour certains cours et certaines combinaisons de cours.

8. ABITUR (BACCALAUREAT)

8. 1. L'Abitur marque la fin du second cycle. La délivrance du Certificat général de fin d'études secondaires (Hochschulreife) implique la participation aux épreuves de l'Abitur.

8. 2. 1. Les épreuves de l'Abitur portent sur 4 matières. Le candidat doit faire preuve de certaines connaissances dans le domaine des matières obligatoires (voir 4), et de connaissances approfondies et élargies en ce qui concerne les matières de spécialisation.

8. 2. 2. Les élèves qui ont choisi plus de deux matières de spécialisation (voir 7. 7.) décident, avant que ne commencent les épreuves de l'Abitur, quelles sont les deux matières de spécialisation qui devront être appréciées en tant que telles dans le cadre de l'examen ; les cours portant sur la matière de spécialisation non choisie sont considérés, dans l'Abitur, comme des cours fondamentaux.

8. 3. Les matières obligatoires faisant l'objet des épreuves écrites de l'Abitur comprennent :

8. 3. 1. deux matières de spécialisation,

8. 3. 2. soit une matière choisie par l'élève dans un groupe de matières obligatoires (voir 4) où ne figure aucune des deux matières de spécialisation, soit l'instruction religieuse.

Pour les disciplines faisant l'objet d'épreuves écrites, il peut être institué également des épreuves orales.

8. 4. L'épreuve orale de l'Abitur porte, au choix de l'élève, sur une matière scientifique ou artistique n'ayant pas déjà fait l'objet d'épreuves écrites. Une épreuve d'éducation physique peut tenir lieu d'épreuve orale de l'Abitur. Toutefois, si l'un des domaines définis au paragraphe 4. 1. se trouve exclu du champ des épreuves définies au paragraphe 8. 3. , l'épreuve orale doit porter sur le domaine en question.

8. 5. Si les arts plastiques ou la musique sont choisis comme matières d'examen, conformément à l'article 8. 3. , l'épreuve écrite peut être remplacée par une épreuve spéciale comportant aussi une partie écrite.

8. 6. Si le sport est choisi comme matière d'examen, conformément à l'article 8. 3. 1, l'épreuve écrite est remplacée par une épreuve spéciale comportant aussi une partie écrite.

8. 7. Pour être admis à participer aux épreuves, il faut avoir suivi, dans les années 12/13, au moins 4 cours semestriels portant sur les matières d'examen. En outre, en ce qui concerne la fréquentation des cours fondamentaux, il faut remplir les conditions indiquées aux articles 7. 5. 1 et 7. 5. 2.

8. 8. Est jugé apte à recevoir le Certificat général d'études secondaires (Hochschulreife) tout élève qui, dans la totalité des cours de spécialisation entrant en ligne de compte pour les années 12/13, et dans la totalité des cours fondamentaux entrant en ligne de compte pour les années 12/13, ainsi que dans les épreuves de l'Abitur, a obtenu un nombre de points égal au moins au tiers du maximum possible (voir 9).

9. EVALUATION DES RESULTATS ET DECISION CONCERNANT LE DEGRE DE REUSSITE DES ELEVES AU COURS DE LEUR PASSAGE DANS LE SECOND CYCLE D'UN LYCEE

9.1. Les résultats obtenus par un élève au cours de son passage dans le second cycle d'un lycée sont appréciés à l'aide des notes d'usage (de 1 à 6). Pour convertir en une estimation globale les notes attribuées au cours des années 12/13, on a recours à un système de points.

9.2. La détermination du système de points à partir de l'échelle de 6 notes se fait de la manière suivante :

- la note 1 correspond à 15, 14 ou 13 points, selon la façon de noter ;
- la note 2 correspond à 12, 11 ou 10 points, selon la façon de noter ;
- la note 3 correspond à 9, 8 ou 7 points, selon la façon de noter ;
- la note 4 correspond à 6, 5 ou 4 points, selon la façon de noter ;
- la note 5 correspond à 3, 2 ou 1 points, selon la façon de noter ;
- la note 6 correspond à 0 point.

9.3. Les résultats semestriels obtenus dans les cours fondamentaux et les cours de spécialisation exigés et les résultats obtenus dans les épreuves de l'Abitur permettent de définir un nombre total de points, dans lequel entrent en proportions égales les points que l'on peut obtenir dans les cours fondamentaux, dans les cours de spécialisation et dans les épreuves de l'Abitur. Le nombre de points que celles-ci peuvent permettre à un élève d'acquérir est fonction des résultats qu'il obtient dans les quatre matières d'examen, le nombre maximum de points étant identique pour chacune d'elles (voir 8.2. à 8.4.). On peut obtenir au maximum 900 points, soit au maximum 300 points pour les cours fondamentaux, 300 pour les cours de spécialisation et 300 pour l'Abitur.

9.3.1. Après l'Abitur, se voit décerner le Certificat général d'études secondaires (qui donne accès aux études supérieures) tout élève qui totalise, pour les années 12/13, au moins 300 points sur les 900 constituant le maximum, à savoir au moins 100 points pour l'ensemble des cours fondamentaux entrant en ligne de compte, l'ensemble des cours de spécialisation entrant en ligne de compte et les épreuves de l'Abitur, respectivement. Dans 15 des cours fondamentaux et 4 des cours de spécialisation entrant en ligne de compte, ainsi que dans deux matières d'examen, dont l'une doit être la spécialité, il faut obtenir respectivement au moins 5 points (correspondant à la note 4), selon l'appréciation ordinaire.

9.3.2. Le barème applicable est le suivant :

	Nombre de points maximum
Cours fondamental semestriel	15
Cours de spécialisation semestriel	45
Travail réalisé dans le cadre d'un cours de spécialisation (voir 9.3.4)	30

9.3.3. On tient compte, pour l'évaluation globale, des résultats obtenus par l'élève dans 20 cours fondamentaux. Les résultats obtenus par l'élève dans deux autres cours fondamentaux (pendant le dernier semestre) sont pris en considération dans le cadre de l'Abitur. Pour l'éducation physique, un maximum de 3 cours fondamentaux peuvent être pris en considération. Lorsqu'aucun point n'a été obtenu pendant un cours semestriel, celui-ci ne compte pas (voir 9.3.5).

9.3.4. En outre, sont pris en considération pour l'évaluation globale les résultats obtenus dans 6 des 8 cours de spécialisation obligatoires portant sur les matières d'examen, indiquées à l'article 8.3.1. Les résultats obtenus pendant le dernier semestre dans les deux cours de spécialisation qui concernent ces disciplines sont pris en considération dans le cadre de l'Abitur. En outre, il est tenu compte, pour l'évaluation globale, des points que rapporte un travail relevant d'une spécialité. Les cours de spécialisation pendant lesquels aucun point n'a été obtenu ne comptent pas.

9.3.5. Quinze, au moins, des cours fondamentaux ou de spécialisation entrant en ligne de compte pour la qualification globale visée aux articles 9.3.3 et 9.3.4 doivent provenir des trois domaines définis à l'article 4.1. Les cours prévus à l'article 7.5.2, ainsi que 4 cours semestriels portant sur les sciences sociales, doivent être inclus dans l'évaluation indiquée à l'article 9.3.3, pour autant qu'ils ne comptent pas comme cours de spécialisation.

9.3.6. En ce qui concerne l'Abitur, on peut obtenir au maximum 75 points dans chacune des 4 matières obligatoires (voir les articles 8.2. à 8.4.). Les résultats obtenus dans ces matières pendant le dernier semestre sont affectés du coefficient 1 ; ceux qui sont obtenus aux épreuves de l'Abitur sont affectués du coefficient 4.

9.3.7. Si, dans tel Land, l'étude réalisée dans le cadre d'un cours de spécialisation n'est pas incluse dans le barème indiqué dans l'article 9.3.2, des dispositions peuvent être prises pour compenser la perte de points ainsi occasionnée.

10. DISPOSITIONS FINALES

10.1. Le présent Accord prend effet le jour de sa conclusion. Il doit être exécuté au plus tard, dans tous les établissements, dans l'année scolaire 1976/77.

10.2. Les diplômes d'Abitur délivrés conformément au présent Accord bénéficient d'une reconnaissance réciproque. En vertu de l'Accord que les chefs des gouvernements des Länder ont conclu le 28 octobre 1964, au nom des Länder de la République Fédérale d'Allemagne, en vue de l'uniformisation de l'éducation ("Accord de Hambourg"), la reconnaissance réciproque du Certificat général d'études secondaires (donnant accès à l'enseignement supérieur) dans le cas des élèves qui n'ont pas étudié de deuxième langue étrangère au cours des années 7 à 10 ne peut intervenir qu'à condition que ces élèves reçoivent un enseignement dans une seconde langue étrangère lorsqu'ils rentrent dans l'année 11 du second cycle des lycées.

10.3. Pour les lycées dans lesquels le second cycle a été réformé, les dispositions susvisées remplacent les accords conclus antérieurement pour autant qu'ils sont incompatibles avec ces dispositions.

10.4. Un accord spécial de la Conférence des Ministres de l'Education et des Affaires Culturelles précisera les conditions dans lesquelles un élève du second cycle des lycées (Sekundarstufe II) peut obtenir le Certificat technique d'études secondaires, qui donne accès aux écoles supérieures.

UNITED KINGDOM

NATIONAL CHILDREN'S BUREAU
FROM BIRTH TO SEVEN.- The Second Report of the National Child Development Study (1958 Cohort).-

Ronald Davie, Neville Butler, Harvey Goldstein
with the assistance of Eva Alberman, Euan Ross, Peter Wedge.-
Longman in association with the National Children's Bureau, London 1972

Background to the study

In 1958 information was gathered on virtually every baby born in England, Scotland and Wales during the week 3-9 March. This survey was designed to study the administration of British maternity services and investigate causes of perinatal death. The cohort, numbering some 17,000 at birth, was unique for a number of reasons; it was a representative national group, selected only by date of birth; (an estimated 98% of all babies born in the week) virtually eliminated the possibility of bias; and the comprehensive nature of the perinatal data was unparalleled in the world for any national cohort.

The opportunity arose to trace and study these children again and the National Child Development Study (1958 Cohort) was set up for this purpose. It is some of the results of this first detailed follow-up, when the children were seven years old, which are presented here. At the time of writing information from a second follow-up when the children were eleven years old is being checked and prepared for analysis. It is hoped that it will be possible to continue to study the children throughout their childhood and into adult life.

THE PARENTS, THE FAMILY AND THE CHILD

Family size

The term "family size" conventionally refers to the number of children in the family rather than the total number of people. In this study it is defined as the number of children of the household under the age of 21 years.

The fact of an inverse relationship between family size and ability and attainment has been shown by a number of research workers. A frequently suggested explanation is that children in larger families have less contact with their parents and other adults than do children in smaller families.

A little less than 9% of the children in the study were 'only children' that is, there were no other children in the family under the age of 21 years; about 61% came from two- or three- child families; and 30% were in families of four or more children. There was the expected social class trend, middle-class families tending to be smaller than working-class families. The proportion of children in families of four or more in Social Class V* was well over twice as high as that in the middle class groups.

The effect upon reading attainment at the age of seven of being in a one- or two- child family compared to a five or more child family is equivalent to a gain in reading age of about twelve months. The association with arithmetic attainment, as mentioned by the problem arithmetic score is much smaller (a gain of about three months) and this lends weight to the suggestion that it is in verbal skills that children from large families are most disadvantaged. Furthermore, social adjustment is at least in part effected through contacts with parents and children from larger families are less well adjusted in schools.

Whatever the reasons for the association between family size, attainment and adjustment - and they may be complex - it is clear that children from large families are at a considerable disadvantage in school. More detailed enquiries should help to clarify the position, but schools can perhaps help by compensating for any retardation of verbal skills and concepts in the classroom programme. Furthermore, although in the analyses the effects of family size were calculated independent of social class in practice children from large families are also found more frequently in lower social class groups and so they may be disadvantaged in many other ways.

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* Classification of occupations of the sample

Social class		%
I	Higher professional	5
II	Other professional and technical	14
III (non-manual)	Other non-manual occupations	10
III (manual)	Skilled manual	44
IV	Semi-skilled manual	17
V	Unskilled manual	6
No male head of household		3

N = 14,495

Parents' education and social origins

When the children were seven, information was obtained from the mothers about whether the fathers had stayed on at school beyond the minimum school-leaving age. The same question was asked about the mothers themselves in the original perinatal enquiry. The criterion is a relatively crude one and the group who stayed on at school will include those who went on to a university as well as those who left school after a year or two beyond the minimum age. Among those who left at the minimum age will be some whose jobs involved a considerable amount of training (e.g. in accountancy) and some who re-entered the educational system for retraining, further or higher education. In general terms, however, the parents who stayed on at school will have received more formal education than those who left.

In order to make an analysis more meaningful, it was confined to those children who were living with both natural parents. In all there were 64 per cent of the children both of whose parents had left school at the minimum age. This varied from a mere 12 per cent in Social Class I to as many as 87 per cent in Social Class V.

Information was also obtained about the occupations of both the maternal and paternal grandfathers, which were classified according to whether they were manual or non-manual. Most of the parents whose own background was middle-class will have continued with their formal education, whereas a minority of those with a working-class background will have done so. Parental education will therefore be in part a reflection of social origins.

An analysis was carried out to evaluate the effect of parental education and social origins upon their children's reading and arithmetic attainments and social adjustment in school. It was designed to estimate the effects of these two factors when allowance was made for social class, family size and the sex of the children.

The results for reading attainment indicate that both the mother's education and the father's are of considerable importance. The effect of each is equivalent to approximately six months gain in reading age in the context of this analysis. In contrast the father's social origins has no effect when allowance is made for the other factors. It is interesting, however, that the effect of the mother's social origins, although quite small, is still present. All these effects are small, of course in relation to the effects of the present social class of the family, and its size.

In arithmetic neither parents' social origins show any effect but their educational background is still an important factor. This shows a greater effect than family size, although present social class still stands out as the most potent predictor.

Again for social adjustment, the parents' social origins are in general of little or no consequence. Parental education shows some residual effect but this is quite small in comparison with social class, sex and family size.

It is clear from the analysis that parents' education has an important positive effect on their children's development even when allowance is made for other factors. This finding poses a number of intriguing questions. Can it be attributed to the education itself and the attitudes which this engenders? Educationalists no doubt would like to think so. Or is the explanation that parents who stay on at school are more intelligent - at least in an academic framework - and that the relevant genes are passed on to their offspring? Perhaps parents who stayed on at school, already had certain attitudes for example towards school and, more generally, towards academic pursuits and towards authority, which predispose them to stay on. In this case the relevance of the extended education would be that it identifies parents with certain attitudes, which are acquired by their children, who are then better placed to take advantage of schooling in their first two years or so.

Children of working mothers

Many social commentators have greeted the rising proportion of married women workers with dismay. The assumption behind this attitude is that children will develop best if their mother's time is spent in the home and on the family rather than on paid work outside the home.

Home-making probably strikes most people as a "talent" worth promoting but is it necessarily incompatible with working? Perhaps there are dangers in over-emphasizing the needs of the home and the family.

Research findings in this controversy have been so contradictory that almost any point of view could find some support. The lack of any concensus was attributed to the failure of the research workers to take account fully - if at all - of the relevant factors. These would include, for example, social class, family size, the age of the child, the duration of the work and the standard of alternative care.

The analysis was therefore designed to make allowance for social class and family size differences and was confined to children living with both natural parents.

When interviewed the mothers were asked whether they had been in paid work outside the home; whether any such work had been undertaken before or after the child had started school at five years; and whether it was full-time, part-time or temporary. Work of less than one month's duration was discounted. The proportions of all mothers who worked full-time both before the child started school and afterwards were fairly constant at around 9 or 10 per cent. On the other hand, the proportions who took part-time or temporary work before the child started school (20 per cent) was much smaller than those who had such work afterwards (34 per cent). Overall, some 52 per cent of the mothers had never worked, and 48 per cent had worked at some time.

The results of the reading analysis indicate that when allowance has been made for the other factors there is a clear association between mothers working before children start school and reading attainment at the age of seven. The association for working after children start school is smaller. Even the former result, although clear, shows a relatively small effect when compared with the effects of social class and family size and is also smaller than the sex effect. Within the context of this analysis and the groupings chosen it represents a loss in reading age of approximately three months for those children whose mothers worked full-time before they started school.

The results of the analysis of arithmetic attainment fail to indicate an effect of mothers working after their children started school. The result for mothers working before their children started school shows a small effect, equivalent to one month's progress in arithmetic.

What of the social adjustment of the children of working mothers? The children whose mother worked before they started school were no worse adjusted than children of non-working mothers. However, those whose mother worked after they started school were shown to be less well adjusted than the others. The effect is quite small in relation to the effects of the other factors.

It is clear that, in general, the children of working mothers do not show any marked ill-effects at the age of seven in terms of their attainment and adjustment in school. It may be that any important ill-effects will manifest themselves at later ages but this seems unlikely since a younger child is more vulnerable to environmental and other stresses. It may also be that the children's behaviour or adjustment at home suffers and this must for the moment remain an open question.

ABILITY AND ATTAINMENT

Social class differences in attainment and ability

There has been a great deal of discussion in recent years about the relationship between social class and school attainments. This has tended to centre upon the issue of social inequality which, it has been alleged, is reinforced by our educational system. However, relatively little thought has been given to

the role of the primary school. Attention has tended to centre upon the eleven-plus examination and the selective secondary education which follows. In particular, the laudable attempts to provide equal educational opportunity for all children have perhaps overlooked the very marked inequalities which exist even before children transfer to junior school. This is partly because very few studies have been concerned with attainments in infant schools or departments, and even fewer have related these attainments to social class.

Two important points emerge from the study. First, there is clearly a strong association between social class and reading and arithmetic attainment at seven years of age. The chances of an unskilled manual worker's child (Social Class V) being a poor reader are six times greater than those of a professional worker's child (Social Class I). If the criterion of poor reading is made more stringent, the disparity is much larger. Thus, the chances of a Social Class V child being a non-reader are fifteen times greater than those of a Social Class I child

A second point which emerges is that the gradient from Social Class I through to Social Class V is not regular. There is little or no difference between the results for Social Class II and Social Class III (non-manual) children but very considerable differences between the results of these groups and those for Social Class III (manual) children.

The results for the abilities assessed by teachers' rating and for the copying designs test show the same general pattern with increasing proportions of children with poor ability accompanying lower social class. Again, the gradient of proportions through the social classes is not regular.

It is difficult to draw firm conclusions about the relative differences in the proportions in the social class groups since these are dependent upon the abilities being assessed, the measures and the stringency of the criteria adopted. However, there appears to be a substantial division between the children from non-manual or middle-class homes on the one hand, and those from manual or working-class homes on the other. This suggests that whatever the factors are which social class indirectly measures, they are fairly sharply differentiated as between middle-class and working-class homes, at least as far as their effect on attainment or ability is concerned. The results also suggest that there is a meaningful division within the middle-class group between Social Class I children and the others. In the working-class group, the Social Class V children appear to be at a particular disadvantage in respect of poor ability or attainment in school.

THE SCHOOLS

Size of class and educational attainment

The work which has been done on this question has shown that children in larger classes tend to have higher educational attainment than those in smaller classes. At first sight these findings appear absurd; they contradict a common sense view. Indeed, it has been pointed out that the results were probably spurious. In the first place, large classes tend to be found in large schools in urban areas and children in such schools in general have higher attainment. Furthermore, poor readers are often placed in smaller classes so that more individual attention can be given.

The procedure adopted in the study was, first, to exclude certain groups of children from the analysis: children in independent schools, children in streamed classes (or in special schools for the handicapped), those who had attended nursery schools or classes and those who were in Scottish schools. Secondly, the analysis was designed to allow for the effect of the other extraneous factors mentioned: size of school, length of schooling, social class and parental interest. Allowance was also made for sex, since although it was considered most unlikely that boys would in general be in larger or smaller classes than girls, it might be that there is a sex difference in response to class size. Finally, separate analyses were carried out for children in infant schools and those in infant departments of junior with infant schools.

The children were allocated to groups according to class size. 'small classes' (30 or less); 'medium-sized classes' (31-40); and 'large classes' (41 or more). Similarly, four school groups were made: 100 or less, 101 to 200; 201 to 260; and more than 260.

In none of the analyses carried out did the children in 'small' or 'medium-sized' classes prove to have higher attainments than the children in 'large' classes. On the contrary, the reverse was sometimes the case.

However, it should be noted that the effect of class size is relatively small when compared with that of any of the other variables used. For example, the difference in attainment between those in 'large' and those in 'small' classes is only half as big as the difference between boys and girls or between those children who started school before five and those who started after five years of age.

Even so children in small classes do not appear necessarily to derive benefit from their fortunate situation in terms of their attainments in the basic subjects. What is the explanation?

First, it is as well to be clear that these analyses have been concerned with average differences. Therefore the results do not show that all children in smaller classes have poorer attainment. A second reservation is that small classes defined (30 children or less), may not have been small enough for beneficial effects to be apparent. Perhaps classes with less than, say, 20 or 25 children are needed before the advantages of more individual attention are translated into improved attainment. However, the possibility of a reduction in the average class size to 20 or 25 would need a considerable increase in the educational budget and may well be impracticable.

Two explanations of the results suggest themselves, although both are speculative. Neither would seem to account for the fact that class size differences in attainment were found amongst the children in infant schools but not for those in junior with infant schools. This could be due to sampling fluctuations. However, none of the analyses indicate higher attainment or better adjustment in small classes.

The first explanation is that larger classes might in general be located in urban schools and some research has indicated that urban children tend to perform rather better than rural children in standardised tests. The other possible explanation is that a large class tends to impose a relatively formal teaching approach and that this may in general be associated with higher levels of measured attainment at the age of seven. A smaller class not only permits more individual attention but, as has been pointed out, lends itself more readily to a flexible, informal, working day. With increasing numbers in the class it becomes more likely that the teacher will find it necessary to impose a more highly structure programme.

It may be true that in general and within certain limits the more highly structured (i.e. the more formal) the learning situation the higher the measured attainment, although it is fair to add that such research as has been done has not established this. Alternatively, it may be true that a more informal teaching approach is associated with higher attainments only when the teacher is experienced enough to ensure that every child is fully extended. In neither case, we should find in examining large numbers of children that the drawbacks of larger classes were offset by the 'efficiency' of a highly structure classroom environment in terms of the children's measured attainment.

These speculations, of course, open the door to controversial issues which are beyond the scope of the present discussion. It should be said, however, that few educationalists would equate higher measured attainments with better education, although many would hope that the former would flow from the latter. The evidence that larger classes are associated with higher attainment may be rejected on the grounds that due allowance has not been made for some important factors in the analyses. However, it is difficult to see what these could be. Furthermore, there is no shred of evidence at present that smaller classes lead to higher attainment - except in the rather special circumstances of remedial classes. Whilst high measured attainment cannot be equated with good education, it would seem wise to spend a very small fraction of the money needed to reduce class size on some investigation of the benefits which should result.

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